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CR-133518

TYPE I PROGRESS REPORT (For the period 9 June 1973 to 8 August 1973)

TITLE: Effects of Construction and Staged Filling of Reservoirs on  
the Environment and Ecology ERIC #341

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GSFC ID NUMBER: DE 335

OBJECTIVE: To study the environmental and ecological impact of the  
construction and operation of Oakley Dam and Friends Creek  
Impoundment located on the Sangamon River in East Central  
Illinois.

1. Three digital planimetric base maps of the study area have been  
completed using stereomodels of underflight photography. Within the next  
two months five stereomodels of underflight imagery will be used to  
complete the base mapping of the study area. Through two-dimensional  
transformations, the independently generated digital planimetric units  
will be connected to form a continuous strip covering the Sangamon River  
corridor from Rantoul to Springfield, Illinois.

2. Underflight photography was received for the following dates: 21 March  
1973 and 31 May 1973. The photographs taken 31 May 1973 had considerable  
cloud cover obscuring important sections of the study area. A request was  
submitted for another flight over the study area in August or September  
1973, if it could be arranged on a ferry mission to or from the East Coast.

3. Underflight photography is being sent to CERL in a prompt time period  
following the flights. The cooperation provided to CERL by the NASA  
personnel involved in the Aircraft Program is excellent.

4. Systematic processing of underflight photography and ERTS imagery is  
underway. Final processing of underflight and ERTS imageries is expected  
to be completed during the next two months. Flightline mosaics will then  
be constructed and detailed interpretation will be conducted at this stage.

5. All ERTS Data Request Forms are receiving prompt attention.

6. Work is about complete on a data analysis technique and the associated  
software for the extraction of engineering and geomorphic properties of  
the terrain in the study area, i.e., slope, rate of change of slope, surface  
geometry, etc. During the next two months work will commence on the photo-  
grammetric compilation of the surface configuration of the study area  
utilizing aircraft photography. When the photogrammetric mapping is  
completed, the above mentioned computer program will be used to undertake  
the necessary analysis of the surface configuration data.

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E73-10882) EFFECTS OF CONSTRUCTION AND  
STAGED FILLING OF RESERVOIRS ON THE  
ENVIRONMENT AND ECOLOGY Progress Report,  
9 Jun. - 8 Aug. (Corps of Engineers, 1 p HC \$3.00 CSCI 08H  
Champaign, Ill.)

Unclas  
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